



750 BERING DRIVE HOUSTON, TX 77057-2198

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

n re Application of: Carl K. Smith et al.

Serial No.: 09/763,239 Confirmation No.: 5401

Filed: June 1, 2001

For: SHALE-STABILIZING ADDITIVES

Group Art Unit: 1712

Examiner: Tucker, Philip

Atty. Dkt. No.: 11836.0704.NPUS01

MIDR:704

## RESPONSE TO NON-FINAL OFFICE ACTION

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DATE OF DEPOSIT 22 July 2003

I hereby certify that this paper or fee is being deposited with the United States Postal Service "EXPRESS MAIL POST OFFICE TO ADDRESSEE" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to: Commissioner for Patents, Washington D.C. 20231.

Signature

The following is in response to the Office Action dated April 22, 2003:

## **AMENDMENTS:**

#### TO THE CLAIMS:

Commissioner for Patents

Washington, D.C. 20231

- 14. (Amended) The method of claim 12, wherein the polymer is a copolymer of styrene derivative and maleic anhydride with alkylene oxide based side chains.
- 15. (Amended) The method of claim 12, wherein the polymer has a molecular weight of from 5000 g / mol to 100,000 g/mol.
- 16. (Amended) The method of claim 12, wherein the weight of the alkylene oxide based side chains is above 200 g/mol.
- 17. (Amended) The method of claim 12, wherein the number of alkoxylates in the polymer side chain is up to 60 units.



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18. (Amended) The method of claim 12, wherein the polymer has the molecular structure:

wherein M in each occurrence independently is hydrogen or  $-[CH_2\text{-}CHR\text{-}O]_n\text{-}CH_3$  with R being CH<sub>3</sub> or CH<sub>2</sub>-CH<sub>3</sub> or hydrogen, with the proviso that at least some of the radicals M have the meaning of  $-[CH_2\text{-}CHR\text{-}O]_n\text{-}CH_3$ , n is from 3 to 70, and x and y each independently are from 1 to 100.

19. The method of claim 14, wherein the residual maleic anhydride groups in the polymer are hydrolyzed.

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### REMARKS REGARDING CLAIMS AMENDMENTS:

A clean copy of Claims 14-19 has been provided at the request of the Examiner. Only the underlining and brackets were removed.

The claims as amended are submitted as being clearly distinct and patentable over the art of record and therefore their entry and allowance by the Examiner is requested.



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## IN RESPONSE TO THE OFFICE ACTION:

## **OBJECTION UNDER RULE 1.121:**

Claims 14-19 have been objected to under Rule 1.121 for not being in clean form. This objection has been obviated by the Applicants' amendments above.

Applicants ask that the Examiner reconsider and withdraw the objection.

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The undersigned representative requests any extension of time that may be deemed necessary to further the prosecution of this application.

The undersigned representative authorizes the Commissioner to charge any additional fees under 37 C.F.R. 1.16 or 1.17 that may be required, or credit any overpayment, to Deposit Account No. 01-2508, referencing Order No. 11836.0704.NPUS01.

In order to facilitate the resolution of any issues or questions presented by this paper, the Examiner should directly contact the undersigned by phone to further the discussion.

Respectfully submitted,

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Date: